TRANSMITTAL OF APPEAL BRIEF (Large Entity)

Docket No. 200-0500/81071737

In Re Application Of: **Daniel Joseph Ondrus**

Application No.	Filing Date	Examiner	Customer No.	Group Art Unit	Confirmation No.
09/544,423	April 6, 2000	George R. Koch	32996	1734	7482

Invention: **METHOD FOR FORMING A JOINT**

COMMISSIONER FOR PATENTS:

Transmitted herewith is the Appeal Brief in this application, with respect to the Notice of Appeal filed on:

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Beverly M. Bunting
Signature

Dated: **April 3, 2006**

Beverly M. Bunting, Reg. No. 39,072
Attorney for Applicant
Gifford, Krass, Groh, Sprinkle,
Anderson & Citkowski, P.C.
P.O. Box 7021
Troy, MI 48007-7021
(248) 647-6000

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Attorney Docket No. FGT-10802/44

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BOARD OF APPEALS AND INTERFERENCES

Applicant: Daniel Joseph Ondrus

Serial No.: 09/544,423 Group Art Unit: 1734

Filing Date: April 6, 2000 Examiner: George R. Koch

Title: METHOD FOR FORMING A JOINT

APPEAL BRIEF

Mail Stop Appeal Brief – Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

I. Real Party in Interest.

The real party in interest is the assignee, Ford Motor Company, as evidenced by the Assignment of the inventor, Ondrus, recorded on April 6, 2000, at Reel 010747 and Frame 0321 in the U.S. Patent and Trademark Office.

II. Related Appeals and Interferences.

A previous appeal was filed on August 16, 2004. As a result of this appeal, prosecution was reopened in an Office Communication dated November 3, 2004.

III. Status of Claims.

Claims 1-30, 32 and 35 have been canceled. Claims 31, 33, 34 and 36 all stand pending in this application, and are the subject of this appeal.

IV. Status of Amendments.

An amendment was filed on August 4, 2005 subsequent to the Office Action dated May 5, 2005.

V. Summary of Claimed Subject Matter.

Claim 31 discloses a method of repetitively forming a coach joint during a manufacturing process between two members using a viscous adhesive. The method includes the steps of positioning a first member initially having a generally planar portion and an arcuate portion at a second end of the planar portion to be in contact with a second member to form a coach joint during the manufacturing process. The joint includes both a coverage portion having a coverage length extending along a length of the first member from a first point on the first member to a second point at the second end at which the first member begins to curve to form a tangent portion, and a flange fill portion having a flange fill length extending from the second point to a line segment that is collinear to the tangent portion. The method also includes the steps of depositing the viscous adhesive in about fifty percent of the coverage length and in about ten percent of the fill length to repetitively form the joint between the first member with the second member during the manufacturing process. The adhesive amount and placement of adhesive within the fill and coverage portions of the coach joint is designated to keep seepage to a minimum and stress transfer to a maximum.

Claim 36 is directed to a method of repetitively forming a lap joint between two members using a viscous adhesive during a manufacturing process. The method includes the steps of positioning a first generally planar member to overlap a second generally planar member to form the lap joint during the manufacturing process. The joint includes a coverage portion defined by a length of overlap between the first member and the second member. The method also includes

the steps of depositing the viscous adhesive initially at a center point for the coverage length so that the adhesive extends between fifty to seventy-five percent of the coverage length, and is equidistant from the center point, to repetitively interconnect the first member and the second member for each joint during the manufacturing process, so that seepage of the adhesive from the joint is a minimum value while stress transfer of the joint is a maximum.

VI. Grounds of Rejection to Be Reviewed on Appeal.

As set forth in the Office Action Summary having a mailing date of November 3, 2005, there five issues in this appeal, namely:

1. Whether claims 31, 33 and 34 are unpatentable under 35 U.S.C. 112 first paragraph as failing to comply with the written description requirement.
2. Whether claim 36 is unpatentable under 35 U.S.C. 112 first paragraph as failing to comply with the written description requirement.
3. Whether claims 31 and 33 are unpatentable under 35 U.S.C. 102(b) as being anticipated by U.S. Patent Number 3,660,217 to Kehr.
4. Whether claim 36 is unpatentable under 35 U.S.C. 102(b) as being anticipated by U.S. Patent Number 4,803,124 to Kunz.
5. Whether claim 34 is unpatentable under 35 U.S.C. §103(a) as obvious over U.S. Patent Number 3,660,217 to Kehr in view of Adhesives Handbook (pages 1-19, 28-31, 40-43 and 94).

This appeal brief will assume that the above statutory rejections are the only rejections intended by the Examiner.

VII. Argument.

A. First 35 U.S.C. §112 Issue.

Claims 31, 33, and 34 were rejected under 35 U.S.C. 112 first paragraph as failing to comply with the written description requirement. Applicant traversed this rejection.

In the final Office Action dated November 3, 2005, the Examiner stated:

> Claims 31, 33, and 34 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification as originally filed does not disclose that the first member *initially* has a generally planar portion and an arcuate portion at a second end of the planar portion.

The specification on page 5, lines 7-9 states that "a method for applying adhesive within an assembly of the type having a certain coverage portion and a certain fillet portion is provided." Also in the specification on page 6, line 15 through page 7, line 5 it is stated:

> Particularly, joint 10 includes a first dimension or portion which is conventionally referred to as the "flange coverage" dimension or length 14 and which extends along first member 20 from a point 16 at a first end of the member 20, to a point 22 at which the member 20 begins to curve or form a "tangent portion" 26. Joint 10 further includes a second dimension, portion, or length 24 which is referred to as the "flange fill" or "fill" dimension or portion and which extends from point 22 to a line or segment 25 which is substantially colinear to curved or "tangent" portions 26, 28 of respective joint-forming members 18, 20. Similarly, the one half coach joint 30, shown in Figure 2, also has a coverage length or dimension 32 and a fill dimension or length 34, each of which terminate at point 8 at which member 33 begins to curve or form a tangent portion.

The above writing from the specification clearly discloses that the first member initially has a generally planar portion and an arcuate portion at a second end of the planar portion. Further, the drawings clearly show this structure.

The Examiner's rejection sets forth no ground or authority for the assertion that the specification does not disclose that the first member initially has a generally planar portion and an arcuate portion at a second end of the planar portion. In formulating the present rejection, the Examiner has ignored the requirements of Section 2163.04 of the Manual of Patent Examining Procedure (MPEP). This Section makes clear that:

> In rejecting a claim, the Examiner must set forth express findings of fact which support the lack of written description conclusion. The findings should: (A) identify the claim limitation at issue; and (B) establish a prima facie case by providing reasons why a person skilled in the art at the time the application was filed would not have recognized that the inventor was in possession of the invention as claimed in view of the disclosure of the application as filed.

In the previous Office Actions, the Examiner has not complied with the requirements of the MPEP; furthermore, the Examiner has ignored very explicit description and teaching in the specification which is contrary to the Examiner's position. Therefore, the Applicant respectfully submits that there is simply no **statutory** basis for the rejection of claims 31, 33, 34 under U.S.C. §112, and that the claims are allowable over this rejection.

B. Second 35 First 35 U.S.C. §112 Issue.

Claim 36 was rejected under 35 U.S.C. 112 first paragraph as failing to comply with the written description requirement. Applicant traversed this rejection.

In the final Office Action dated November 3, 2005, the Examiner stated:

> Claim 36 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The

> claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification as originally filed does not disclose that the viscous adhesive is deposited *"initially* at a center point for the coverage length so that the adhesive extends between fifty to seventy five percent of the coverage length". This language varies from the originally filed disclosure, since it now appears to define the percentages of the end state of the adhesive (i.e., after spreading), while the original disclosure defined from the percentages of the adhesive prior to spreading.

In the specification it states that on page 7, lines 16-25 that:

> For the lap joint embodiment, shown in Figure 1, the adhesive 12 covers or resides along a distance which is about equal to about fifty to about seventy-five percent of the total coverage length 48 which is defined to be the length of overlap of members 2 and 4. Particularly, in one non-limiting embodiment, adhesive 12 is placed or deposited on the center point 50 of the length 48 and made to extend in a substantially equal length in each direction from the center point 50, thereby interconnecting member 2 to member 4 in order to form joint 46.

Again, the above writing from the specification clearly discloses that the viscous adhesive is initially deposited at a center point 50 so that the viscous adhesive is made to extend between fifty to seventy-five percent of the coverage length. Further, Figure 1 clearly shows this structure.

The Examiner's rejection sets forth no ground or authority for the assertion that the specification does not disclose that the viscous adhesive is deposited initially at a center point for the coverage length so that the adhesive is then made to extend between fifty to seventy five percent of the coverage length. In formulating the present rejection, the Examiner has ignored the requirements of Section 2163.04 of the Manual of Patent Examining Procedure (MPEP). This Section makes clear that:

> In rejecting a claim, the Examiner must set forth express findings of fact which support the lack of written description conclusion. The findings should: (A) identify the claim limitation at issue; and (B) establish a prima facie case by providing reasons why a person skilled in the art at the time the application was filed would not have recognized that the inventor was in possession of the invention as claimed in view of the disclosure of the application as filed.

In the previous Office Actions, the Examiner has not complied with the requirements of the MPEP; furthermore, the Examiner has ignored very explicit description and teaching in the specification which is contrary to the Examiner's position. Therefore, the Applicant respectfully submits that there is simply no **statutory** basis for the rejection of claim 36 under U.S.C. §112, and that the claim is allowable over this rejection.

C. Third 35 U.S.C. §102(b) Issue.

Claims 31, 33 and 34 were rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent Number 3,660,217 to Kehr. The Applicant traversed this rejection.

In the final Office Action dated November 3, 2005, the Examiner stated:

> 5. Claims 31 and 33 are rejected under 35 U.S.C. 102(b) as being anticipated by Kehr (US Patent 3,660,217).
>
> As to claim 31, Kehr discloses a method of repetitively (represented by each glue line and each layer) forming a joint between two members (for example, layers 24b and 24c) during a manufacturing process using a viscous adhesive, the method comprising the steps of positioning a first member (24b) having an arcuate portion (shown in Figure 3) to be in contact with a second member to form a coach joint during the manufacturing process, wherein the joint is defined by both a coverage portion having a coverage length extending along a length of the first member from a first point at a first end of the first member to a second point at the second end at which the first member begins to curve to form a tangent portion, and a flange fill portion having a flange fill length extending from the second point to a line segment that is collinear to the tangent portion (the definition of the joint is inherent to the coach joint), and depositing the viscous adhesive in about fifty percent of the coverage length and in about ten percent of the fill

> length to repetitively form the joint between the first member with the second member during the manufacturing process (as shown by the fact that the glue lines only cover substantially below fifty percent of the area), so that seepage of the adhesive from the joint is a minimum while stress transfer is a maximum (inherent properties).
>
> The language of the claim does not exclude creating the joint and arcuate portions after depositing the adhesive.
>
> As to claim 33, Kehr discloses full coach joints (see Figure 3) such that the second member also includes a generally planar portion and an arcuate portion at the second end of the planar portion.

U.S. Patent Number 3,660,217 to Kehr discloses a method and means for laminating superimposed layers of the same or different material using a curable liquid adhesive composition. The method includes the steps of feeding a continuous web of material 10 over a guide roll 12, and through an adhesive application station 13. The adhesive application station 13 includes an applicating cylinder 14 submerged in a bath of the liquid polyene/polythiol adhesive 15. The cylinder includes etched lines 16, 17 that define the pattern of the adhesive lines applied to the surface 18 of the web of material. The adhesive is applied to form staggered lines of adhesive on each layer in the stack that extend the entire length of the member. Thus the pattern of the etched lines 21, 21 is affixed to the web of material in a staggered relationship. The material is cut into sheets and stacked so that parallel adhesive bonding lines 20, 21 are in a staggered relationship to each other. The stack of material is passed through a compressive means, and the adhesive is cured using irradiation. As shown in Fig. 3, a method of producing a honeycomb core includes the steps of applying the adhesive in alternately spaced lines to opposite sides of the material, and lapping the single sheet of material back and forth. This achieves an unexpanded honeycomb, the adhesive is cured, the stack is then expanded, such as by using an expansion force on each end of the stack. Kehr '217 does not disclose a method of

forming a coach joint between two members that includes the steps of defining a coverage length and a fill length along the length of a first member *initially having a generally planar portion and an arcuate portion* and applying a viscous adhesive in about 50% of the coverage length and in about 10% of the full length, to secure the two members together.

It is well settled that in order for a reference to form the statutory basis for an anticipation rejection, the cited prior art reference must disclose each and every element of the claimed invention.

For example, see *In re Hubbell*, 76 USPQ 105 (CCPA 1947) in which the patent application under appeal differed from the prior art in that it included a one-piece component that had previously been made in several pieces. The patent examiner had refused to allow the claims on the basis that, in the examiner's view, "it did not amount to invention to make in one piece what had previously been made in two or more pieces." That decision was affirmed by the Board of Appeals.

In reversing the Board of Appeals, the CCPA, the predecessor to the Court of Appeals for the Federal Circuit, wrote in part as follows:

> As to the rule that it ordinarily does not connote invention to make in one piece what had previously been made in more than one piece, it was freely admitted in oral argument that there are notable exceptions to this rule. Many exceptions are pointed out in appellant's brief, and instances where the rule has been applied are cited by the Solicitor for the Patent Office.
>
> This court has on several occasions passed upon this exact question and made exceptions to the general rule.
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> . . .
>
> In other words, the only question presented is whether or not, under the particular circumstances of this case, it would amount to invention to make a part integral which in the prior art had been in

> two pieces. In most instances in which such a question has been presented, it has been held that as a general proposition it does not amount to invention to make integral that which has theretofore been in two or more parts. There are notable exceptions to this rule. The law is well stated in *Canada et al. v. Michigan Malleable Iron Co.*, 124 Fed. 486, 493, as follows:
>
> > While it is true that there is no invention in making into one whole that which was before in the same form, but in detachable parts, when there is no further consequence, yet it is also true that, if such change produces a more useful result, there may be a quality of invention in making it.
> >
> > . . .
> >
> > We think in cases like that at bar where the article produced is novel, useful, and not anticipated by the prior art that it should be regarded as involving the element of invention, notwithstanding the simplicity of the inventive thought when once arrived at, and that what appellant has done, judged by any standards announced by the courts, is entitled to patent protection. The decision of the Board of Appeals is reversed.

See also *Krementz v. S. Cottle Co.*, 148 US 567 where the Supreme Court, in discussing this issue, said in part:

> We cannot see in these devices, taken separately or together, an anticipation of the Krementz button. Indeed, the court below concedes that "Krementz was the first to make a stud from a single continuous piece of metal in which the head was hollow and round in shape."
>
> . . .
>
> In the present instance, however, we find a new and useful article, with obvious advantages over previous structures of the kind. A button formed from a single sheet of metal, free from sutures, of a convenient shape, and uniting strength and lightness, would seem to come fairly within the meaning of the patent laws.

The present application is patentably distinguishable over the prior art. Kehr et al. '217 simply does not disclose, anticipate or otherwise suggest the claimed invention of claim 31 as

amended. Kehr '217 merely discloses that the adhesive is deposited in a plurality of spaced apart parallel lines, and each line extends the full length of a planar member. In Kehr, the coverage length is the length of the member, and the fill portion is presumably the width between the lines of adhesive. Unlike the Applicant's invention, Kehr does not deposit any adhesive in the fill portion.

Kehr et al. '217 merely discloses a rolled material. Kehr et al. '217 does not disclose that the member initially has a planar portion and an arcuate portion at the second end of the planar portion. Kehr et al. '217 does not disclose the step of defining a coverage length as extending along a length of the first member from a first point to a second point where the first member begins to curve to form a tangent portion, and a fill length as extending from the second point to a line segment that is collinear to the tangent portion. In fact, Kehr is distinguishable since the glue is applied to the sheet of materials as it comes off the roll which is not the same as the first member initially having a planar portion and an arcuate portion.

The Examiner suggests that Kehr teaches that the adhesive is deposited along up to 50% of the coverage portion and up to 10% of the fill portion, since the glue lines cover less than 50% of the area of the member. Kehr et al. '217 does not disclose the step of applying the viscous adhesive in about 50% of the coverage length and about 10% of the fill length in order to secure the two members together. The method of forming a joint disclosed by Kehr et al. is clearly distinguishable from Applicant's invention, since the Applicant's method clearly includes the step of defining the fill and coverage lengths in relation to each other and with respect to the length of the first member. The Applicant clearly defines the shape of the first member, which is not the same as the planar member of Kehr et al. As shown in Fig. 1 and Fig. 2 of Kehr, the

adhesive is applied in parallel lines, and each line extends from edge to edge, or across 100% of the coverage length of the first member.

The Examiner suggests that Kehr teaches a coach joint in Fig. 3. In fact, Kehr et al. '217 teaches away from the present invention, since Kehr's method includes the step of forming the honeycomb core by folding one sheet of material back and forth over itself, and the adhesive is applied in a plurality of parallel, spaced apart lines to achieve an unexpanded honeycomb. The adhesive is cured, in a curing step. The honeycomb core is expanded in another step to achieve the shape shown in Fig. 3.

According to MPEP 706.02, for anticipation under 35 U.S.C. §102(b), there must be some teaching in the reference to suggest the method of repetitively forming a coach joint between two members during a manufacturing process using a viscous adhesive, as taught by the Applicant. Any features not taught directly must be inherently present. The Applicant respectfully submits that the requisite teachings are simply not present in Kehr '217.

Applicant respectfully submits that the instant invention clearly falls within the exceptions noted in the *Krementz* decision. In the instant case, the methodology taught by the Applicant of repetitively forming a coach joint between two members during a manufacturing process using a viscous adhesive includes the steps of defining a coverage length and a fill length along the length of a first member *initially having a generally planar portion and an arcuate portion* and applying a viscous adhesive in about 50% of the coverage length and in about 10% of the full length, to secure the two members together.

In other words, the present invention enjoys the advantage of consistent joint formation in a manufacturing process. Previously, this type of precise joint formation was not available. Since the initial structure of each member of the joint and the method of forming the joint of

Kehr et al. are distinguishable from Applicant's invention, the Kehr et al. '217 reference does not anticipate the claimed invention under 35 U.S.C. §102(b). As such, Applicant respectfully requests that this reference be withdrawn as a basis for rejection.

D. Fourth 35 U.S.C. §102(b) Issue

Claim 36 was rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent Number 4,803,124 to Kunz. The applicant traversed this rejection.

In the final Office Action dated November 3, 2005, the Examiner stated:

> 6. Claim 36 is rejected under 35 U.S.C. 102(b) as being anticipated by Kunz (US Patent 4,803,124).
>
> As to claim 36, Kunz discloses a method of repetitively forming a lap joint (see Figure 6 and 5) between two members using a viscous adhesive during a manufacturing process, the method comprising the steps of positioning a first planar member (item 41) to overlap a second generally planar member (item 49) to form a lap joint during the manufacturing process, wherein the joint includes a coverage portion defined by a length of overlap between the first member and the second member, and depositing the viscous adhesive (starfish 21) at a center point for the coverage length and applying the adhesive between fifty to seventy five percent of the coverage portion, so that it is equidistant from the center point, to repetitively interconnect the first member and the second member for each joint during the manufacturing process, so that seepage of the adhesive from the joint is a minimum value while stress transfer of the joint is a maximum. The difference between the coverage length in Figure 5 and the overlap length in Figure 6 is between 50 to 75 percent, especially at the inward portions of the starfish pattern. Furthermore, since Kunz is directed towards bonding of semiconductor "chips", emphasis plural, each chip bonded is considered a repeated bonding operation in a manufacturing process.

U.S. Patent Number 4,803,124 to Kunz discloses a method of bonding a semiconductor chip to a mounting surface using a conductive die attach adhesive material. The adhesive is deposited as a number of spaced apart droplets having a star shape. The method includes the steps of simultaneously applying first and second deposits of die adhesive material in lateral

spaced relation to each other on a mounting surface, and the first deposit has a shape of a starfish. The starfish shape has the characteristic of having a raised central portion disposed at the intersection of a plurality of centrally thickened radially extending arms (column 7, lines 55-58). The method also includes the steps of applying the bonding surface of a semiconductor chip against the first deposit, to cause the first deposit to spread across the bonding surface to eliminate voids within the die attach adhesive material, to provide full coverage of the bonding surface with a uniformly thick layer of die attach material. The method further includes the steps of disposing a second deposit at a locus lateral of the first deposit for securing a grounding chip thereto, and for making an electrical connection with the first deposit in response to the application of the semiconductor chip thereto. The bonding surface of the semiconductor chip is fully and symmetrically covered (Fig. 7 with the chip 41 removed from the bonding layer and column 8, lines 16-17). As shown in Figs. 5, and 6, the semiconductor package includes a mounting surface 49 for supporting the layer 39 of die attach adhesive material disposed beneath a semiconductor chip 41. An electrically conductive causeway 43 can be formed to interconnect chip 40 with chip 41. Kunz '124 does not disclose a method of repetitively forming a lap joint between two members that includes the steps of defining a coverage length as the length of overlap between the two members, defining a center point of the coverage length, and applying a viscous adhesive at the center point that extends equidistantly between 50 to 75% of the coverage length, to secure the two members together.

It is well settled that in order for a reference to form the statutory basis for an anticipation rejection, the cited prior art reference must disclose each and every element of the claimed invention.

For example, see *In re Hubbell*, 76 USPQ 105 (CCPA 1947) in which the patent application under appeal differed from the prior art in that it included a one-piece component that had previously been made in several pieces. The patent examiner had refused to allow the claims on the basis that, in the examiner's view, "it did not amount to invention to make in one piece what had previously been made in two or more pieces." That decision was affirmed by the Board of Appeals.

In reversing the Board of Appeals, the CCPA, the predecessor to the Court of Appeals for the Federal Circuit, wrote in part as follows:

> As to the rule that it ordinarily does not connote invention to make in one piece what had previously been made in more than one piece, it was freely admitted in oral argument that there are notable exceptions to this rule. Many exceptions are pointed out in appellant's brief, and instances where the rule has been applied are cited by the Solicitor for the Patent Office.
>
> This court has on several occasions passed upon this exact question and made exceptions to the general rule.
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> . . .
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> In other words, the only question presented is whether or not, under the particular circumstances of this case, it would amount to invention to make a part integral which in the prior art had been in two pieces. In most instances in which such a question has been presented, it has been held that as a general proposition it does not amount to invention to make integral that which has theretofore been in two or more parts. There are notable exceptions to this rule. The law is well stated in *Canada et al. v. Michigan Malleable Iron Co.*, 124 Fed. 486, 493, as follows:
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> > While it is true that there is no invention in making into one whole that which was before in the same form, but in detachable parts, when there is no further consequence, yet it is also true that, if such change produces a more useful result, there may be a quality of invention in making it.

. . .

> We think in cases like that at bar where the article produced is novel, useful, and not anticipated by the prior art that it should be regarded as involving the element of invention, notwithstanding the simplicity of the inventive thought when once arrived at, and that what appellant has done, judged by any standards announced by the courts, is entitled to patent protection. The decision of the Board of Appeals is reversed.

See also *Krementz v. S. Cottle Co.*, 148 US 567 where the Supreme Court, in discussing this issue, said in part:

> We cannot see in these devices, taken separately or together, an anticipation of the Krementz button. Indeed, the court below concedes that "Krementz was the first to make a stud from a single continuous piece of metal in which the head was hollow and round in shape."
>
> . . .
>
> In the present instance, however, we find a new and useful article, with obvious advantages over previous structures of the kind. A button formed from a single sheet of metal, free from sutures, of a convenient shape, and uniting strength and lightness, would seem to come fairly within the meaning of the patent laws.

The present application is patentably distinguishable over the prior art. Kunz '124 does not disclose, anticipate or otherwise suggest the claimed invention of claim 36 as amended. Kunz '124 merely discloses the step of initially applying the adhesive in a starfish pattern having a raised center portion disposed at the intersection of a plurality of centrally thickened radially extending arms. Kunz '124 merely discloses the step of applying the chip to the starfish-shaped deposit to cause the deposit to spread such that voids are eliminated and the distributed volume of the deposit is proportional to the surface area of the bonding surface of the chip. Kunz '124 merely discloses the step of depositing a second deposit laterally of the first deposit, securing a grounding chip to the second deposit, so that the second deposit makes contact with the first deposit.

Kunz '124 does not include the step of positioning two members so that they overlap, and the length of overlap defines a coverage length of the joint. Kunz '124 does not include the step of defining the center of the coverage length. Kunz '124 does not include the step of depositing the viscous adhesive at the center of the coverage length so that it extends between 50 to 75% of the coverage length, and the adhesive is equidistant from the center point after curing. Kunz '124 is distinguishable from Applicant's invention since Kunz does not include the step of defining the center of the coverage length. Kunz is also distinguishable from Applicant's invention since the adhesive occupies 100% of the coverage length after the adhesive is cured. This is evident from the joining of the first drop of adhesive with the second drop of adhesive to form an electrical bond. In fact, the teachings of Kunz '124 state that the distributed volume of the deposit is proportional to the surface area of the bonding surface, and that the bonding surface is fully and symmetrically covered.

The method of forming a joint and resultant joint of Kunz '124 is clearly distinguishable from Applicant's invention, since the adhesive occupies 100% of the coverage portion after the adhesive is cured. In fact, Kunz '124 teaches away from the present invention, since seepage is desirable to make the electrical connection between the grounding chip through the second deposit.

Applicant respectfully submits that the instant invention clearly falls within the exceptions noted in the *Krementz* decision. In the instant case, the methodology taught by the Applicant of repetitively forming a lap joint between two members during a manufacturing process using a viscous adhesive includes the steps of defining a coverage length as the length of overlap between the two members, defining a center point of the coverage length, and applying a

viscous adhesive at the center point that extends equidistantly between 50 to 75% of the coverage length, to secure the two members together.

In other words, the present invention enjoys the advantage of consistent lap joint formation in a manufacturing process. Previously, this type of precise lap joint formation was not available. Since the structure of the joint and the method of forming the lap joint of Kunz '124 are distinguishable from Applicant's invention, the Kunz '124 reference does not anticipate the claimed invention under 35 U.S.C. §102(b). As such, Applicant respectfully requests that this reference be withdrawn as a basis for rejection.

Therefore, it is respectfully submitted that claim 36 is allowable over the rejection under 35 U.S.C. §102(b).

E. Fifth 35 U.S.C. §103(a) Issue

Claim 34 was rejected under 35 U.S.C. §103(a) as being unpatentable over Kehr as applied to claim 31 above and further in view of Adhesive Handbook. The Applicant respectfully traverses this rejection with respect to claim 34 for the reasons set forth above with respect to the rejection under §102(b).

> 7. Claim 34 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kehr as applied to claim 31 above, and further in view of Adhesives Handbook, (pages 1-19,28- 31,40-43 and 94).
>
> Kehr discloses all of the limitations of claim 31.
>
> As to claim 34, Kehr discloses full coach joints, but does not disclose one half coach joints.
>
> However, Adhesives Handbook discloses many well-known joints, including one half coach joints as in claim 26 and 34 (see page 1 I , and page 12, top row, third and foudh [sic] figure) and full coach joints as in claims 25 and 33 (for example, see page 12, top row, third and fourth figure). One in the art would appreciate that all of these joints are well known, have certain favorable loading and manufacturing characteristics (see Adhesives Handbook, pages 8, 18 and 19) and would utilize routine experimentation such as a stress analysis as disclosed in Adhesives

> Handbook to determine the appropriate joint. Therefore, it would have been obvious to one of ordinary skill in the ad at the time of the invention to have utilized the claimed joints disclosed in Adhesives Handbook in order to achieve proper stress handling characteristics.

The Applicant submits that since the base claim is allowable, the dependent claim is likewise allowable. Therefore, it is respectfully submitted that claim 34 is allowable over the rejection under 35 U.S.C. §103(a).

VIII. Conclusion.

The Applicant discloses a novel method of forming a joint between two members in a systematic manner. Progress in the automobile manufacturing art is founded on such new methodologies. The art of forming a joint during a manufacturing process is a developed art which is advanced by apparently small improvements. Nevertheless, they are significant advances which contribute to the commercial well being of society. Applicant's invention represents such an advancement in that this art and the claims are commensurate in scope to the inventive contribution.

In conclusion, the claims in the instant application are very specific. They are directed to a method of repetitively forming a joint between two members during a manufacturing process by defining the coverage portion and the fill portion and depositing the viscous adhesive in a predefined manner to repetitively form the joint during the manufacturing process. For all the reasons set forth in the patent specification, the methodology achieves several advantages not achieved by the prior art. Perhaps more importantly, however, none of the prior art cited by the Patent Examiner discloses Applicant's invention as it is clearly defined in claims 31 and 36, i.e.

the two independent claims in this case. Accordingly, the claims define patentable subject matter and are in condition for allowance. Such action is respectfully requested.

Respectfully submitted,

Beverly M. Bunting

Beverly M. Bunting
Registration No. 36,072
Gifford, Krass, Groh, Sprinkle,
Anderson & Citkowski, P.C.
2701 Troy Center Drive, Suite 330
P.O. Box 7021
Troy, MI 48007-7021
(248) 647-6000

Attorney for Applicant

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I hereby certify that this paper or fee (along with any paper referred to as being attached or enclosed) is being deposited with the United States Postal Service "Express Mail Post Office To Addressee" Service under 37 CFR 1.10 on the date indicated above and is addressed to: Mail Stop Appeal Brief – Patents, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Erica L. Triner

Erica L. Triner

APPENDIX A

CLAIMS ON APPEAL

31. A method of repetitively forming a coach joint between two members during a manufacturing process using a viscous adhesive, said method comprising the steps of:

positioning a first member initially having a generally planar portion and an arcuate portion at a second end of the planar portion to be in contact with a second member to form a coach joint during the manufacturing process, wherein the joint is defined by both a coverage portion having a coverage length extending along a length of the first member from a first point at a first end of the first member to a second point at the second end at which the first member begins to curve to form a tangent portion, and a flange fill portion having a flange fill length extending from the second point to a line segment that is collinear to the tangent portion;

depositing the viscous adhesive in about fifty percent of the coverage length and in about ten percent of the fill length to repetitively form the joint between the first member with the second member during the manufacturing process, so that seepage of the adhesive from the joint is a minimum while stress transfer is a maximum.

33. A method as set forth in claim 31 wherein the joint is a full coach joint, and the second member initially includes a generally planar portion and an arcuate portion at a second end of the planar portion.

34. A method as set forth in claim 31 wherein the joint is a one-half coach joint.

36. A method of repetitively forming a lap joint between two members using a viscous adhesive during a manufacturing process, said method comprising the steps of:

positioning a first generally planar member to overlap a second generally planar member to form a lap joint during the manufacturing process, wherein the joint includes a coverage portion defined by a length of overlap between the first member and the second member; and

depositing the viscous adhesive initially at a center point for the coverage length so that the adhesive extends between fifty to seventy-five percent of the coverage length, and is equidistant from the center point, to repetitively interconnect the first member and the second member for each joint during the manufacturing process, so that seepage of the adhesive from the joint is a minimum value while stress transfer of the joint is a maximum.

APPENDIX B

EVIDENCE

None

APPENDIX C

RELATED PROCEEDINGS

None